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93 RF 4237

# **EG&G ROCKY FLATS**

DIST.	LTR	LNC
BENEDETTI, R.L.		
BENJAMIN, A.		
BERMAN, H.S.		
BRANCH, D.B.		
CARNIVAL, G.J.		
DAVIS, J.G.		
FERRERA, D.W.		
HANNI, B.J.		
HARMAN, L.K.		
HEALY, T.J.		
HEDAHL, T.		
HILBIG, J.G.		
IDEKER, F.H.		
KIRBY, W.A.		
KUESTER, A.W.		
LEE, E.M.	X	X
MANN, H.P.	X	X
MARX, G.E.		
McDONALD, M.M.		
McKENNA, F.G.	X	X
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
PIZZUTO, V.M.		
RILEY, J.H.		
SANDLIN, N.B.		
SHEPLER, R.I.		
STEWART, D.L.		
SULLIVAN, M.T.		
SWANSON, F.R.		
WILKINSON, R.B.	X	X
WILLIAMS, S. (ORC)		
WILSON, J.M.		
ZANE, J.O.	X	X
<del>OGG, R.T.</del>	X	X
<del>WILSON, K.</del>	X	X
<del>PARIS, S.</del>	X	X
<del>BUDDER, K.</del>	X	X
<del>MELLEN, J.</del>	X	X
<del>FULLER, P.</del>	X	X
CORRES CONTROL	X	X
TRAFFIC		

**EG&G ROCKY FLATS, INC.**  
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

April 6, 1993

93-RF-4237

James K. Hartman  
Asst. Manager Environmental Management  
DOE, RFO

## INTERAGENCY AGREEMENT TABLE 6 MILESTONE EXTENSION FOR OPERABLE UNIT 4 DRAFT AND FINAL PHASE I RFI/RI REPORTS - RLB-158-93

EG&G Rocky Flats, Inc. is hereby transmitting the appropriate documentation for justification of an Interagency Agreement (IAG) Table 6 Milestone extension for Operable Unit 4 (OU-4) draft and final Phase I RFI/RI Reports. The documentation consists of a letter from the U. S. Department of Energy (DOE) to the Colorado Department of Health (CDH) and the U. S. Environmental Protection Agency (EPA) and seven attachments which provide sufficient back-up justification.

The IAG milestones for the OU-4 draft and final Phase I RFI/RI Reports are May 21, 1993 and October 18, 1993, respectively. The requested "target" extension submission dates for the draft and final reports are March 17, 1994 and August 17, 1994, respectively. EG&G Rocky Flats has incorporated one month of contingency time into the OU-4 Phase I RFI/RI Schedule, which reflects a "commitment" extension submission date for the draft and final reports of April 17, 1994 and September 17, 1994. The contingency time has been incorporated into the OU-4 schedule due to uncertainties associated with laboratory analytical durations, data validation and regulatory agency document review periods.

### CLASSIFICATION:

UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER  
SIGNATURE  
DOCUMENT CLASSIFICATION  
WHEN WRITTEN PER  
DATE  
OFFICE

IN REPLY TO RFP CC NO:

### ACTION ITEM STATUS

☐ OPEN ☐ CLOSED  
☐ PARTIAL

LTR APPROVALS:  
RTG  
ORIG & TYPIST INITIALS  
BTO: apt

REVIEWED FOR CLASSIFICATION/UCNI	
BY	G. T. Ostdiek
DATE	4-12-93

James K. Hartman  
April 6, 1993  
93-RF-4237  
Page 2

I trust this information will be adequate to support a request for an IAG milestone extension. If you have any questions or concerns pertaining to this matter, please contact R. T. Ogg on 966-8608.



R. L. Benedetti  
Associate General Manager  
Environmental Restoration Management  
EG&G Rocky Flats, Inc.

RTO:apt

Orig. and 1 cc - J. K. Hartman

Attachment:  
As Stated

cc:

S. Howard	-	DOE, RFO
F. R. Lockhart	-	" "
A. H. Pauole	-	" "
R. J. Schassburger	-	" "
S. R. Surovchak	-	" "

# **NOTICE:**

## **INCOMPLETE DOCUMENT**

The following document is missing 2 pages. This document was distributed in an incomplete state, and the microform copy is representative of the paper copy. If replacement pages are distributed, they will be microfilmed and included in the Administrative Record file.

April 5, 1993

Environmental Protection Agency/Colorado Department of Health

Re: Request for IAG Extension of OU4 Draft and Final Phase I RFI/RI Reports

Dear \_\_\_\_\_:

The U.S. Department of Energy (DOE) has experienced significant delays to the Operable Unit No. 4 (OU4) Solar Evaporation Ponds (SEP) Phase I RFI/RI Program. This letter provides a basis for requesting milestone extensions for the submittal of the OU4 Draft and Final Phase I RFI/RI reports. Reasons for these delays include the following:

- Unanticipated requirements associated with the logistics of field mobilization;
- Discrepancies between the Interagency Agreement (IAG) schedule assumptions for OU4 and the actual durations incurred; and
- Delays caused by the conditional approval of the OU4 Final Phase I RFI/RI Work Plan.

Such delays have combined to a total duration of 18 months. However, diligent efforts have allowed the recovery of several months, resulting in a maximum schedule delay of 11 months, reflected in the commitment schedule, and a targeted schedule delay of 10 months, reflected in the target schedule. The target schedule represents the DOE's best estimate for submitting the Phase I RFI/RI Draft and Final Reports. The commitment schedule reflects contingencies for potential delays occurring beyond the control of the DOE. The DOE believes that all future OU4 milestones can potentially be met on schedule, provided U.S. Environmental Protection Agency (EPA) and Colorado Department of Health (CDH) support the OU4 IAG compliance strategy which is attached to this letter.

In accordance with the Rocky Flats Plant (RFP) IAG, signed by the DOE, EPA and CDH on January 22, 1991, the DOE is hereby requesting an IAG Table 6 milestone extension for OU4 SEP for the Draft Phase I RFI/RI Report and the Final Phase I RFI/RI Report. The IAG milestone extension is requested per "Chapter I, Part 42 Extensions, Paragraphs 221-227," of the IAG. The current IAG milestones for the OU4 Draft Phase I RFI/RI Report and Final Phase I RFI/RI Report are May 21, 1993 and October 18, 1993, respectively. The proposed submission dates for the two referenced documents are as follows:

	TARGET SCHEDULE	COMMITMENT SCHEDULE
Draft Phase I RFI/RI Report	March 17, 1994	April 17, 1994
Final Phase I RFI/RI Report	August 17, 1994	September 17, 1994

The total cumulative delay incurred during the OU4 Phase I RFI/RI Program is as follows:

<u>Reasons</u>	<u>Schedule Delay</u>
Unanticipated Mobilization Requirements	3 Months
Outdated IAG Assumptions	11 Months
OU4 Phase I RFI/RI Work Plan Approval Delay	4 Months
Total Cumulative Delay	18 Months

The DOE has taken every effort to mitigate the delay by assigning additional resources and conducting many tasks in parallel. However, logistics within the RFP and PA prevent the utilization of unlimited resources. Nevertheless, a total reduction of eight months delay is targeted, resulting in a net delay of 10 months.

The following seven attachments accompany this letter for your reference:

- Attachment A - Milestone Extension Rationale;
- Attachment B - OU4 Solar Ponds Phase I RFI/RI Target Schedule;
- Attachment C - OU4 Solar Ponds Phase I RFI/RI Commitment Schedule;
- Attachment D - OU4 Phase I RFI/RI Project;
- Attachment E - OU4 Timeline of Events;
- Attachment F - OU4 Solar Ponds Strategy for IAG Compliance; and
- Attachment G - OU4 Critical Schedule Assumptions.

The DOE requests a meeting with EPA and CDH to discuss these issues in detail at the earliest convenient time. Please feel free to contact me if you have any questions or comments pertaining to this matter.

Sincerely,

DOE-RFO

## **ATTACHMENT A - MILESTONE EXTENSION RATIONALE**

The DOE's justification and rationale for requesting these IAG milestone extensions consist of the following reasons.

### **MOBILIZATION DELAYS**

Unanticipated tasks were required for mobilization of the OU4 Phase I RFI/RI Field Program. Although DOE and EG&G Rocky Flats, Inc. (EG&G) expected numerous and complicated logistics for mobilization, it was not anticipated to require four months (August 3, 1992 - December 14, 1992). The RFP IAG allows one month for all RFI/RI mobilization tasks. The following list details requirements for mobilization of the OU4 Phase I RFI/RI Program.

#### **1) Training:**

- General Employee Training;
- Radiation Worker Training;
- Radiation Protection Training;
- Respirator Fit Test and Training;
- Building Indoctrination;
- Radio Communication Training;
- Standard Operating Procedure Training;
- Core Logging Training;
- Decontamination Pad Training;
- Drum Training; and
- Data Management Training.

#### **2) General Permits:**

- Integrated Work Control Package Waiver;
- Land Use Request;
- Buffer Zone Passes;
- Badges and Dosimeters; and
- Soil Disturbance Permit.

#### **3) Equipment Procurement:**

- Field Trucks;
- Drilling Rigs;
- Personal Protective Equipment;
- Decontamination Supplies;
- Radiation Detectors;
- Core Logging Supplies;
- Soil Sampling Equipment; and
- Vadose Zone Monitoring Equipment.

#### **4) Documentation Requirements:**

- Implementation Plan;
- Health and Safety Plan; and
- Vadose Zone Technical Memorandum.

#### **5) Health and Safety:**

- Equipment Calibration;
- Radiation Survey of Equipment;
- Property Transfer Forms; and
- Radiation Work Permits.

## ATTACHMENT A (continued)

The target and commitment schedules include the mobilization tasks, durations of the tasks, and start and finish dates. Additional complications and impacts which are not referenced in the attached schedules include:

- Numerous coordination meetings with various support organizations for OU4;
- In October 1992, the SEP IHSS 101 was designated a Radiological Controlled Area (RCA). The designation of the Ponds as an RCA has created additional health and safety requirements and logistics;
- Support equipment, including a field trailer, equipment storage facilities, and radiation instrumentation was extremely difficult to obtain due to the number of remedial investigations being conducted simultaneously at RFP; and
- The security requirements associated with accessing the RFP Protected Area (PA) are extremely time consuming.

The total delays incurred for the OU4 mobilization tasks amount to three months.

### IAG ASSUMPTIONS

Critical IAG assumptions relative to activity durations were used for planning and implementing the OU4 Phase I RFI/RI field program which are no longer accurate or valid. Specific examples of durations exceeding the IAG durations for critical path activities include:

<u>Critical Path Activities</u>	<u>IAG Duration</u>	<u>Schedule Duration</u>	<u>Incremental Delay</u>	<u>Cumulative Incremental Delay</u>
Procurement (OU4 Work Plan Implementation)	0 days	126 days <sup>a</sup>	126 days	126 days
Vadose Zone Instrumentation (16 boreholes at two days per borehole)	0 days	32 days <sup>a</sup>	32 days	158 days
Radiological Analysis	63 days	75 days <sup>b</sup>	12 days	170 days
Data Validation	21 days	45 days <sup>b</sup>	24 days	194 days
Baseline Risk Assessment (Toxicity Tech Memo on Critical Path)	0 days	35 days <sup>b</sup>	35 days	229 days (total)

<sup>a</sup> = actual      <sup>b</sup> = target schedule

In general, a number of critical path activities were either not included or were assumed in the IAG to require less time than what was actually necessary for the OU4 implementation. Consequently, these activities have contributed to the OU4 Phase I RFI/RI schedule delay by approximately 229 working days or 11 months.

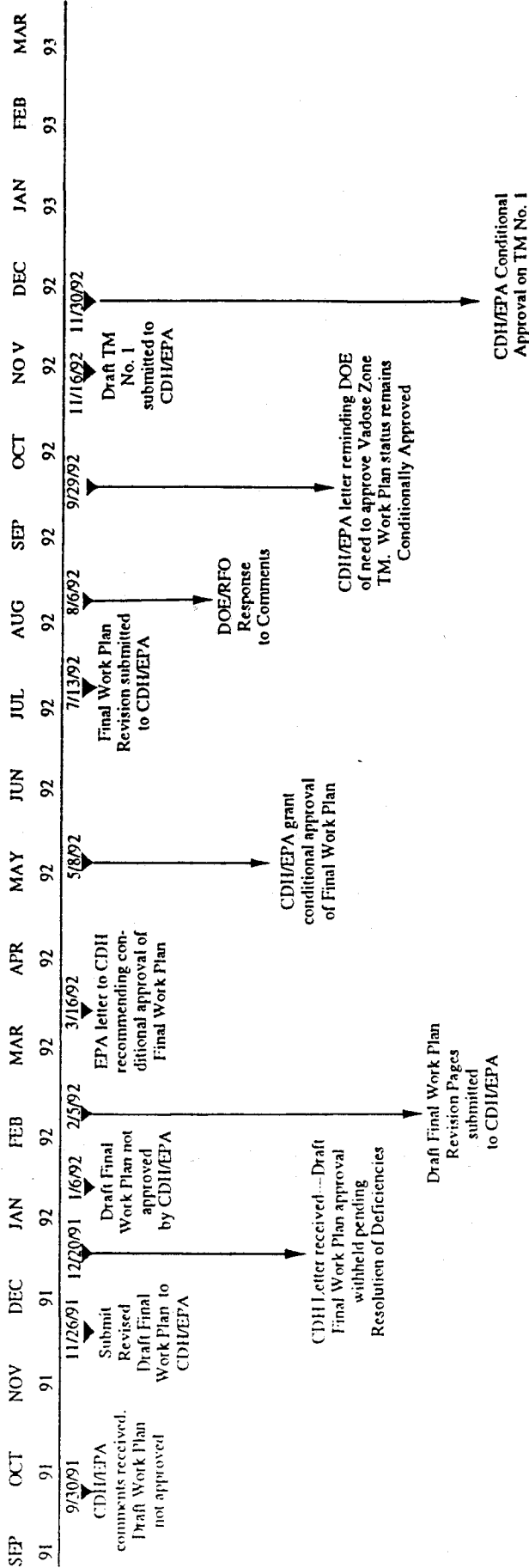
**ATTACHMENT A**  
**(continued)**

**WORK PLAN APPROVAL**

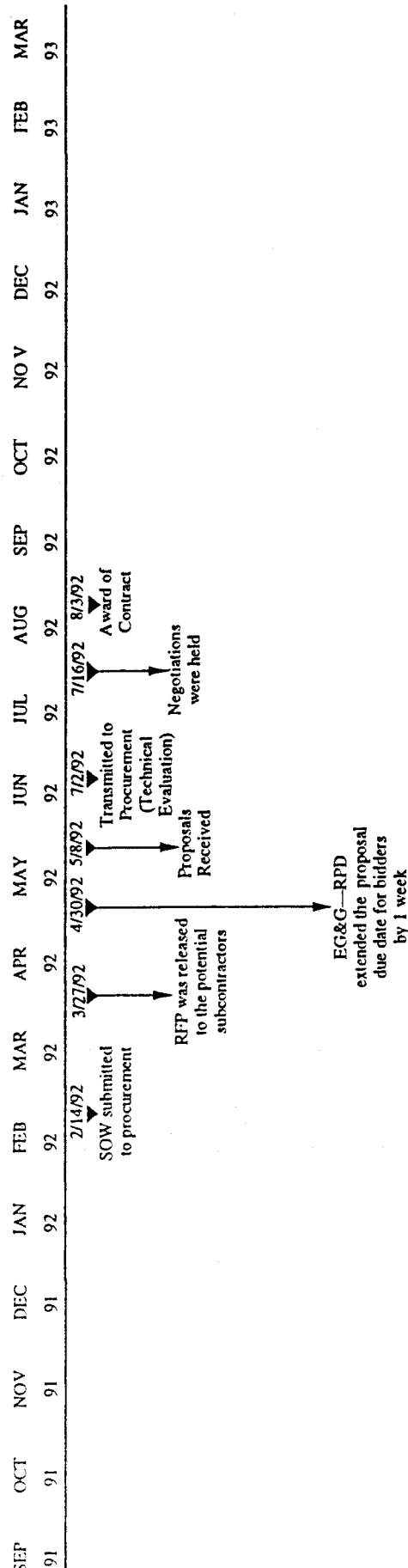
The OU4 Draft Final Phase I Work Plan was submitted to CDH and EPA on November 26, 1991. Regulatory agency correspondence was received on December 20, 1992 indicating the work plan was not approved. The revised OU4 work plan was submitted to CDH and EPA on February 5, 1992. The statement of work (SOW) for implementation of the work plan was transmitted to procurement on February 14, 1992 as a competitive bid contract. Conditional approval for the OU4 Final Phase I RFI/RI Work Plan was received from CDH and EPA on May 8, 1992. Consequently, OU4 work plan approval process delayed the procurement of the OU4 implementation. The DOE and EG&G did not believe it would be cost effective for a subcontractor to propose on the implementation of the unapproved OU4 Work Plan. The total delay incurred from the OU4 Work Plan approval process was four months.

# ATTACHMENT E OU4 TIMELINE OF EVENTS

## REGULATORY PROCESS



## PROCUREMENT



## ATTACHMENT F - OU4 SOLAR PONDS STRATEGY FOR IAG COMPLIANCE

The DOE-RFO, DOE Headquarters, and EG&G consider OU4 SEP program to be of extraordinarily high priority at RFP for remedial activities. Substantial DOE and EG&G resources have been allocated to the SEP program. Due to the high priority of this project, the DOE has developed a plan to potentially recover the IAG schedule. However, it is important to understand and recognize that this approach is extremely aggressive and costly, and may not be feasible for other OUs.

The following figure represents the DOE's strategy which reflects "full-recovery" of the IAG subsequent to the OU4 Final Phase I RFI/RI Report. The DOE believes that the Interim Measure/Interim Remedial Action (IM/IRA) Decision Document, IM Design and Construction and Phase II IAG requirements can all be met with the support from EPA and CDH. The DOE and EG&G will have a contract awarded under the Master Task Subcontract (MTS) program in June 1993 which will include the following IAG requirements:

- Treatability Study (if applicable);
- IM/IRA Decision Document;
- Phase II RFI/RI Work Plans (Draft and Final);
- Phase II RFI/RI field activities; and
- Phase II RFI/RI Reports (Draft and Final).

By integrating these functions into one contract, the DOE and EG&G can save approximately 376 working days in procurement time and create a more efficient program by utilizing one team of contractors rather than multiple contractors for various requirements. The DOE believes that this approach will potentially allow compliance with the IAG. Enforcement of fines and penalties would only consume resources required for the remaining OU4 IAG activities.

# ATTACHMENT B

## OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
1	REGULATORY (IAG) MILESTONES	106d	5/21/93	10/18/93	
2	Submit Draft Phase I RFI/RI Report to EPA/CDH	0d	5/21/93	5/21/93	
3	Submit Final Phase I RFI/RI Report to EPA/CDH	0d	10/18/93	10/18/93	
4					
5	POND ACCESS/CLEAN AND DRY	812d	10/20/92	11/30/95	
6	Pond 207A	0d	10/20/92	10/20/92	
7	Pond 207B-Center	0d	9/30/93	9/30/93	
8	Pond 207B-North (not accessible during phase I)	0d	9/30/94	9/30/94	
9	Pond 207B-South (not accessible during phase I)	0d	11/30/95	11/30/95	
10	Pond 207C (not accessible during phase I)	0d	11/30/94	11/30/94	
11					
12	CONSTRUCT PA DECON PAD	28.3w	8/10/92	2/23/93	
13					
14	WORK PLAN IMPLEMENTATION	584d	8/3/92	10/27/94	
15	Contract Award	0d	8/3/92	8/3/92	
16	Kick-Off Meeting - AE	0d	8/13/92	8/13/92	
17	Kick-Off Meeting - EG&G	0d	8/18/92	8/18/92	
18	PROJECT MANAGEMENT	581.88d	8/5/92	10/27/94	
19	Weekly Project Meetings	581.88d	8/5/92	10/27/94	
20	First Meeting	1.5h	8/5/92	8/5/92	
21	Last Meeting	0d	10/27/94	10/27/94	489FF
22	Monthly Accrual Cost Tracking	570d	8/21/92	10/27/94	
23	Submit First Report	0d	8/21/92	8/21/92	15
24	Submit Last Report	0d	10/27/94	10/27/94	489FF
25	Bi-weekly Progress Tracking & Reports	558d	9/8/92	10/27/94	
26	Start Progress Tracking	0d	9/8/92	9/8/92	
27	Stop Progress Tracking	0d	10/27/94	10/27/94	489FF
28	Justification for Visit Forms	547d	8/18/92	9/21/94	
29	Submit First Months Form	1.8w	8/18/92	8/28/92	17
30	Submit Last Months Form	0.8w	9/16/94	9/21/94	489FS-30d
31	PROJECT PLANNING	520d	8/3/92	7/30/94	15
32	Health & Safety Plan	51d	8/13/92	10/23/92	
33	Prepare Plan	16d	8/13/92	9/4/92	16
34	EG&G Review	14d	9/4/92	9/24/92	33
35	Finalize Plan	11d	9/24/92	10/9/92	34
36	Submit Final Plan	0d	10/9/92	10/9/92	35
37	EG&G Final Review	10d	10/9/92	10/23/92	36
38	Vadose Zone Tech Memo No. 1 & SOPs	172d	8/24/92	4/20/93	
39	Prepare Tech Memo	37d	8/24/92	10/13/92	
40	Submit Draft Tech Memo to EG&G/DOE	0d	10/13/92	10/13/92	39
41	EG&G/DOE Review	13d	10/14/92	10/30/92	40
42	Incorporate Comments	7d	11/2/92	11/10/92	41
43	Transmittal Processing - DOE/RFO	2d	11/11/92	11/12/92	42
44	DOE/EG&G Final Combined Review	2d	11/13/92	11/16/92	43
45	Transmit to CDH/EPA	0d	11/16/92	11/16/92	44
46	EPA/CDH Review	10d	11/17/92	11/30/92	45
47	EPA/CDH Conditional Approval of TM	0d	11/30/92	11/30/92	46
48	Resolve Comments & Finalize Tech Memo	11d	12/1/92	12/15/92	47

## **ATTACHMENT G - CRITICAL SCHEDULE ASSUMPTIONS**

**HORIZONTAL DRILLING** - In the event horizontal drilling is required, the target and commitment schedules will require revision. Revisions will reflect the additional time necessary to develop a related plan, to mobilize new equipment, and to perform the work.

**DOCUMENTATION REVIEW** - All agency review cycles, as referenced in the attached schedule, must be maintained.

**LABORATORY DURATIONS** - Radiological analysis are assumed to require 75 working days, as referenced in the Target schedule.

**DATA VALIDATION** - Data Validation is assumed to require 45 days, as referenced in the target schedule.

**TECHNICAL MEMORANDA** - It is assumed that only those technical memoranda currently identified in the schedule will be required.

## OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
49	Transmit Final TM to DOE-RFO	0d	12/15/92	12/15/92	48
50	Transmit Final TM to CDH/EPA	0d	12/15/92	12/15/92	48
51	EPA/CDH Final Approval	18w	12/16/92	4/20/93	50
52	Modifications to Field Activities, Tech Memo No. 2	98d	1/26/93	6/10/93	
53	EPA/CDH Meeting - Approval to Proceed w/ TM	1d	1/26/93	1/26/93	
54	Prepare Tech Memo	3.3w	1/27/93	2/18/93	53
55	Submit Draft TM to EG&G/DOE	0d	2/18/93	2/18/93	54
56	EG&G/DOE Review	3d	2/18/93	2/23/93	55
57	Incorporate Comments and Expand Memo	2.9w	2/23/93	3/15/93	56
58	Submit Revised Draft TM to EG&G/DOE	0d	3/15/93	3/15/93	57
59	EG&G/DOE Review	2w	3/16/93	3/29/93	58
60	Incorporate Comments	1.2w	3/30/93	4/6/93	59
61	Transmittal Processing - EPA/CDH	2d	4/7/93	4/8/93	60
62	EPA/CDH Review	4w	4/9/93	5/6/93	61
63	Resolve Comments & Finalize Tech Memo	2w	5/7/93	5/20/93	62
64	Submit Final TM	0d	5/20/93	5/20/93	63
65	EPA/CDH Final Approval	3w	5/21/93	6/10/93	64
66	Environmental Evaluation, Tech Memo No. 3	190.5d	8/19/92	5/12/93	
67	Prepare EE Working Document	82d	8/19/92	12/10/92	16
68	Submit Draft EEWD to EG&G	0d	12/10/92	12/10/92	67
69	EG&G Review	4w	12/11/92	1/7/93	68
70	Incorporate Comments into EEWP	0.2w	1/8/93	1/8/93	69
71	Submit Revised Draft EEWD to EG&G/DOE	0d	1/8/93	1/8/93	70
72	EG&G/DOE Review	3w	1/8/93	1/28/93	71
73	Prepare Draft EE Tech Memo	4.8w	1/14/93	2/16/93	70
74	Submit Draft EE Tech Memo to EG&G/DOE	0d	2/16/93	2/16/93	73
75	EG&G/DOE Review	2.7w	2/16/93	3/5/93	74
76	Incorporate Comments into TM	1w	3/5/93	3/12/93	75
77	Submit Revised EE Tech Memo to EG&G/DOE	0d	3/12/93	3/12/93	76
78	Transmittal Processing - EPA/CDH	1d	3/12/93	3/15/93	77
79	EPA/CDH Review	4w	3/15/93	4/12/93	78
80	EPA/CDH Conditional Approval for EE Tech Memo	0d	4/12/93	4/12/93	79
81	Resolve Comments & Finalize Tech Memo	1w	4/12/93	4/19/93	80
82	Submit Final EE Tech Memo to EG&G/DOE	0d	4/19/93	4/19/93	81
83	Transmittal Processing - EPA/CDH	2d	4/19/93	4/21/93	82
84	EPA/CDH Final Review and Approval	3w	4/21/93	5/12/93	83
85	Training	168d	8/3/92	3/24/93	15
86	General Employee Training	154d	8/18/92	3/19/93	
87	First Class	4h	8/18/92	8/18/92	
88	Last Class	8h	3/19/93	3/19/93	
89	Radiation Worker Training	156d	8/19/92	3/24/93	
90	First Class	1d	8/19/92	8/19/92	
91	Last Class	1d	3/24/93	3/24/93	
92	Radiation Protection Training	3d	9/3/92	9/7/92	
93	September 3rd Class	3d	9/3/92	9/7/92	
94	Respirator Fit Test & Training	33d	8/27/92	10/12/92	
95	First Fit	4h	8/27/92	8/27/92	
96	Last Fit	8h	10/12/92	10/12/92	

OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
97	Building Indoctrination	80.06d	8/20/92	12/10/92	
98	First Indoctrination	0.5h	8/20/92	8/20/92	
99	Last Indoctrination	0.5h	12/10/92	12/10/92	
100	Radio Communication Training	73d	8/31/92	12/10/92	
101	First Training	0d	8/31/92	8/31/92	
102	Last Training	0d	12/10/92	12/10/92	
103	SOP Training	89d	8/3/92	12/4/92	
104	First Training	0d	8/3/92	8/3/92	
105	Last Training	0d	12/4/92	12/4/92	
106	Core Logging Training	75d	8/7/92	11/19/92	
109	Decontamination Pad Training	0.1w	11/5/92	11/5/92	116
110	Drum Training	2h	12/9/92	12/9/92	
111	RFEDS Training	16.16d	11/16/92	12/8/92	
114	Site Base Map Preparation	13w	9/8/92	12/7/92	17
115	Mobilization	132d	8/3/92	2/2/93	
151	Plan of the day meetings	455d	11/2/92	7/30/94	
154	FIELDWORK	379d	11/10/92	4/22/94	37
155	Ground Water Level Measurements	14w	3/17/93	6/22/93	
157	Obtain borehole/utility clearances	61d	12/10/92	3/5/93	
158	First Borehole Clearance	0d	12/10/92	12/10/92	
159	Last Borehole Clearance	0d	3/5/93	3/5/93	170, 174, 180, 185, 189
160	Pre-Work RAD Survey	61d	12/10/92	3/5/93	
161	Start Survey	0d	12/10/92	12/10/92	158SS+1d
162	Finish Survey	0d	3/5/93	3/5/93	159FF
163	OU Wide Radiological Survey	100d	11/12/92	4/1/93	
164	Start RAD Survey	0d	11/12/92	11/12/92	
165	Finish RAD Survey	0d	4/1/93	4/1/93	
166	OU Wide Surface Soil Sampling	89d	12/11/92	4/14/93	
167	Random Surface Soil Sampling	3.6w	12/11/92	1/5/93	163
168	Discrete Surface Soil Sampling	2w	4/1/93	4/14/93	
169	Around Ponds (xb,xv,xi,xi)	85d	12/14/92	4/9/93	
170	Borehole Drilling and Sampling/Piezometer Installation	11.3w	12/14/92	3/2/93	
171	Core Logging	15.2w	12/25/92	4/9/93	170SS+2w
172	Vadose Zone Monitoring Installation	3.2w	2/9/93	3/2/93	176
173	Interceptor Trench System (xb,xv,xi,xi)	32d	12/28/92	2/9/93	
174	Borehole Drilling and Sampling/Piezometer Installation	5.4w	12/28/92	2/2/93	
175	Core Logging	4.4w	1/11/93	2/9/93	174SS+2w
176	Vadose Zone Monitoring Installation	1.8w	1/21/93	2/2/93	174FF
177	Pond 207A (xb,xv,xi,xi)	111d	11/10/92	4/13/93	
178	Radiological Survey	5d	11/10/92	11/16/92	
179	Geophysics	5d	12/4/92	12/10/92	
180	Borehole Drilling and Sampling	4.6w	3/10/93	4/9/93	
181	Core Logging	3w	3/24/93	4/13/93	180SS+2w
182	Vadose Zone Monitoring Installation	1.6w	3/22/93	3/31/93	
183	Earthen Ponds "Original Ponds" (xb,xv,xi,xi)	63d	1/13/93	4/9/93	
184	Geophysics	2d	4/8/93	4/9/93	
185	Borehole Drilling & Sampling/Geophysics	11.4w	1/13/93	4/1/93	

## OU4 SOLAR PONDS PHASE I RF1/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
186	Core Logging	7.6w	1/27/93	3/19/93	185SS+2w
187	Vadose Zone Monitoring Installation	1.4w	3/3/93	3/11/93	
188	Radiologically Controlled Area (RCA) (xb.xv.xi.xp)	77d	1/8/93	4/26/93	
189	Borehole Drilling & Sampling	15.4w	1/8/93	4/26/93	
190	Core Logging	13.2w	1/22/93	4/23/93	189SS+2w
191	Vadose Zone Monitoring Installation	3d	2/22/93	2/24/93	
192	Drum Sampling	1w	4/20/93	4/26/93	189FF
193	Seismic Reflection/Refraction	2w	4/26/93	5/7/93	177FF
194	Land Survey	181d	11/18/92	7/29/93	
195	Start Land Survey	0d	11/18/92	11/18/92	164SS+1w
196	Finish Land Survey	0d	7/29/93	7/29/93	204FF-1w
197	Other Vadose	64d	3/22/93	6/17/93	
198	Guelph Permeameter Tests	4.8w	3/22/93	4/22/93	182SS
199	Soil Gas Survey	2w	4/23/93	5/6/93	198
200	Infiltration Installation	6w	5/7/93	6/17/93	199
201	Vadose Monitoring Activities	260d	4/26/93	4/22/94	
202	Lysimeter Sampling	52w	4/26/93	4/22/94	182FS+3.4w
203	Infiltration Testing	6w	5/28/93	7/8/93	200FS-3w
204	Demobilization	4w	7/9/93	8/5/93	203, 188, 183, 177, 173, 169, 166
205					
206	LAB ANALYSIS/TURNAROUND	275d	12/14/92	12/31/93	
207	Around Ponds	176.5d	12/14/92	8/17/93	
208	Non Rad Data Lab Analysis/Turnaround	116.5d	12/14/92	5/25/93	
209	First Sample	0d	12/14/92	12/14/92	170SS
210	Last Sample	0d	5/25/93	5/25/93	170FS+60d
211	Rad Data Lab Analysis/Turnaround	131.5d	12/14/92	6/15/93	
212	First Sample	0d	12/14/92	12/14/92	170SS
213	Last Sample	0d	6/15/93	6/15/93	170FS+75d
214	Receive Unvalidated Non Rad Data	56.5d	3/5/93	5/25/93	
215	Receive First	0d	3/5/93	3/5/93	209FS+60d
216	Receive Last	0d	5/25/93	5/25/93	210
217	Receive Unvalidated Rad Data	56.5d	3/26/93	6/15/93	
218	Receive First	0d	3/26/93	3/26/93	212FS+75d
219	Receive Last	0d	6/15/93	6/15/93	213
220	Validate Non Rad Data	101.5d	3/5/93	7/27/93	
221	Begin	0d	3/5/93	3/5/93	215
222	End	0d	7/27/93	7/27/93	216FS+45d
223	Validate Rad Data	101.5d	3/26/93	8/17/93	
224	Begin	0d	3/26/93	3/26/93	218
225	End	0d	8/17/93	8/17/93	219FS+45d
226	Receive Validated Non Rad Data	56.5d	5/7/93	7/27/93	
227	Receive First	0d	5/7/93	5/7/93	221FS+45d
228	Receive Last	0d	7/27/93	7/27/93	222
229	Receive Validated Rad Data	56.5d	5/28/93	8/17/93	
230	Receive First	0d	5/28/93	5/28/93	224FS+45d
231	Receive Last	0d	8/17/93	8/17/93	225
232	Interceptor Trench System	147d	12/28/92	7/20/93	
233	Non Rad Data Lab Analysis/Turnaround	87d	12/28/92	4/27/93	

OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
234	First Sample	0d	12/28/92	12/28/92	174SS
235	Last Sample	0d	4/27/93	4/27/93	174FS+60d
236	Rad Data Lab Analysis/Turnaround	102d	12/28/92	5/18/93	
237	First Sample	0d	12/28/92	12/28/92	174SS
238	Last Sample	0d	5/18/93	5/18/93	174FS+75d
239	Receive Unvalidated Non Rad Data	27d	3/19/93	4/27/93	
240	Receive First	0d	3/19/93	3/19/93	234FS+60d
241	Receive Last	0d	4/27/93	4/27/93	235
242	Receive Unvalidated Rad Data	27d	4/9/93	5/18/93	
243	Receive First	0d	4/9/93	4/9/93	237FS+75d
244	Receive Last	0d	5/18/93	5/18/93	238
245	Validate Non Rad Data	72d	3/19/93	6/29/93	
246	Begin	0d	3/19/93	3/19/93	240
247	End	0d	6/29/93	6/29/93	241FS+45d
248	Validate Rad Data	72d	4/9/93	7/20/93	
249	Begin	0d	4/9/93	4/9/93	243
250	End	0d	7/20/93	7/20/93	244FS+45d
251	Receive Validated Non Rad Data	27d	5/21/93	6/29/93	
252	Receive First	0d	5/21/93	5/21/93	246FS+45d
253	Receive Last	0d	6/29/93	6/29/93	247
254	Receive Validated Rad Data	27d	6/11/93	7/20/93	
255	Receive First	0d	6/11/93	6/11/93	249FS+45d
256	Receive Last	0d	7/20/93	7/20/93	250
257	Pond 207A	143d	3/10/93	9/24/93	
258	Non Rad Data Lab Analysis/Turnaround	84d	3/10/93	7/5/93	
259	First Sample	0d	3/10/93	3/10/93	180SS
260	Last Sample	1d	7/5/93	7/5/93	180FS+60d
261	Rad Data Lab Analysis/Turnaround	98d	3/10/93	7/23/93	
262	First Sample	0d	3/10/93	3/10/93	180SS
263	Last Sample	0d	7/23/93	7/23/93	180FS+75d
264	Receive Unvalidated Non Rad Data	24d	6/1/93	7/5/93	
265	Receive First	0d	6/1/93	6/1/93	259FS+60d
266	Receive Last	0d	7/5/93	7/5/93	260
267	Receive Unvalidated Rad Data	23d	6/22/93	7/23/93	
268	Receive First	0d	6/22/93	6/22/93	262FS+75d
269	Receive Last	0d	7/23/93	7/23/93	263
270	Validate Non Rad Data	69d	6/1/93	9/6/93	
271	Begin	0d	6/1/93	6/1/93	265
272	End	0d	9/6/93	9/6/93	266FS+45d
273	Validate Rad Data	68d	6/22/93	9/24/93	
274	Begin	0d	6/22/93	6/22/93	268
275	End	0d	9/24/93	9/24/93	269FS+45d
276	Receive Validated Non Rad Data	24d	8/3/93	9/6/93	
277	Receive First	0d	8/3/93	8/3/93	271FS+45d
278	Receive Last	0d	9/6/93	9/6/93	272
279	Receive Validated Rad Data	23d	8/24/93	9/24/93	
280	Receive First	0d	8/24/93	8/24/93	274FS+45d
281	Receive Last	0d	9/24/93	9/24/93	275

# OUJ4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
282	Earthen Ponds	177d	1/13/93	9/16/93	
283	Non Rad Data Lab Analysis/Turnaround	117d	1/13/93	6/24/93	
284	First Sample	0d	1/13/93	1/13/93	185SS
285	Last Sample	0d	6/24/93	6/24/93	185FS+60d
286	Rad Data Lab Analysis/Turnaround	132d	1/13/93	7/15/93	
287	First Sample	0d	1/13/93	1/13/93	185SS
288	Last Sample	0d	7/15/93	7/15/93	185FS+75d
289	Receive Unvalidated Non Rad Data	57d	4/6/93	6/24/93	
290	Receive First	0d	4/6/93	4/6/93	284FS+60d
291	Receive Last	0d	6/24/93	6/24/93	285
292	Receive Unvalidated Rad Data	57d	4/27/93	7/15/93	
293	Receive First	0d	4/27/93	4/27/93	287FS+75d
294	Receive Last	0d	7/15/93	7/15/93	288
295	Validate Non Rad Data	102d	4/6/93	8/26/93	
296	Begin	0d	4/6/93	4/6/93	290
297	End	0d	8/26/93	8/26/93	291FS+45d
298	Validate Rad Data	102d	4/27/93	9/16/93	
299	Begin	0d	4/27/93	4/27/93	293
300	End	0d	9/16/93	9/16/93	294FS+45d
301	Receive Validated Non Rad Data	57d	6/8/93	8/26/93	
302	Receive First	0d	6/8/93	6/8/93	296FS+45d
303	Receive Last	0d	8/26/93	8/26/93	297
304	Receive Validated Rad Data	57d	6/29/93	9/16/93	
305	Receive First	0d	6/29/93	6/29/93	299FS+45d
306	Receive Last	0d	9/16/93	9/16/93	300
307	Radiologically Controlled Area (RCA)	197d	1/8/93	10/11/93	
308	Non Rad Data Lab Analysis/Turnaround	137d	1/8/93	7/19/93	
309	First Sample	0d	1/8/93	1/8/93	189SS
310	Last Sample	0d	7/19/93	7/19/93	189FS+60d
311	Rad Data Lab Analysis/Turnaround	152d	1/8/93	8/9/93	
312	First Sample	0d	1/8/93	1/8/93	189SS
313	Last Sample	0d	8/9/93	8/9/93	189FS+75d
314	Receive Unvalidated Non Rad Data	77d	4/1/93	7/19/93	
315	Receive First	0d	4/1/93	4/1/93	309FS+60d
316	Receive Last	0d	7/19/93	7/19/93	310
317	Receive Unvalidated Rad Data	77d	4/22/93	8/9/93	
318	Receive First	0d	4/22/93	4/22/93	312FS+75d
319	Receive Last	0d	8/9/93	8/9/93	313
320	Validate Non Rad Data	122d	4/1/93	9/20/93	
321	Begin	0d	4/1/93	4/1/93	315
322	End	0d	9/20/93	9/20/93	316FS+45d
323	Validate Rad Data	122d	4/22/93	10/11/93	
324	Begin	0d	4/22/93	4/22/93	318
325	End	0d	10/11/93	10/11/93	319FS+45d
326	Receive Validated Non Rad Data	77d	6/3/93	9/20/93	
327	Receive First	0d	6/3/93	6/3/93	321FS+45d
328	Receive Last	0d	9/20/93	9/20/93	322
329	Receive Validated Rad Data	77d	6/24/93	10/11/93	

OU4 SOLAR PONDS PHASE I RF1/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
330	Receive First	0d	6/24/93	6/24/93	324FS+45d
331	Receive Last	0d	10/11/93	10/11/93	325
332	Environmental Evaluation	188.5d	4/13/93	12/31/93	
333	Non Rad Data Lab Analysis/Turnaround	128.5d	4/13/93	10/8/93	
334	First Sample	0d	4/13/93	4/13/93	456SS
335	Last Sample	0d	10/8/93	10/8/93	456FS+60d
336	Rad Data Lab Analysis/Turnaround	143.5d	4/13/93	10/29/93	
337	First Sample	0d	4/13/93	4/13/93	456SS
338	Last Sample	0d	10/29/93	10/29/93	456FS+75d
339	Receive Unvalidated Non Rad Data	68.5d	7/6/93	10/8/93	
340	Receive Last	0d	10/8/93	10/8/93	334FS+60d
341	Receive Unvalidated Rad Data	68.5d	7/27/93	10/29/93	
342	Receive First	0d	7/27/93	7/27/93	337FS+75d
343	Receive Last	0d	10/29/93	10/29/93	338
344	Validate Non Rad Data	113.5d	7/6/93	12/10/93	
345	Begin	0d	12/10/93	12/10/93	340
346	End	0d	7/27/93	7/27/93	341FS+45d
347	Validate Rad Data	113.5d	7/27/93	12/31/93	
348	Begin	0d	7/27/93	7/27/93	343
349	End	0d	12/31/93	12/31/93	344FS+45d
350	Receive Validated Non Rad Data	68.5d	9/7/93	12/10/93	
351	Receive First	0d	9/7/93	9/7/93	346FS+45d
352	Receive Last	0d	12/10/93	12/10/93	347
353	Receive Validated Rad Data	68.5d	9/28/93	12/31/93	
354	Receive First	0d	9/28/93	9/28/93	349FS+45d
355	Receive Last	0d	12/31/93	12/31/93	350
356	Receive Last	0d	12/31/93	12/31/93	
357	BASELINE RISK ASSESSMENT	525d	1/1/92	1/4/94	
358	Data Collection & Evaluation	347.38d	9/4/92	1/4/94	
359	Collect Historic Data	27.2w	9/4/92	3/15/93	
360	Evaluate Historic Data	35d	3/15/93	5/3/93	360
361	Evaluate Non-Rad Data	205d	3/15/93	12/17/93	
362	Around Ponds	106.5d	3/5/93	8/3/93	215SS
363	Start	0d	3/5/93	3/5/93	228FS+1w
364	Finish	0d	8/3/93	8/3/93	
365	ITS	77d	3/19/93	7/6/93	
366	Start	0d	3/19/93	3/19/93	240
367	Finish	0d	7/6/93	7/6/93	253FS+1w
368	Pond 207A	74d	6/1/93	9/13/93	
369	Start	0d	6/1/93	6/1/93	265SS
370	Finish	0d	9/13/93	9/13/93	278FS+1w
371	Earthen Ponds	107d	4/6/93	9/2/93	290SS
372	Start	0d	4/6/93	4/6/93	303FS+1w
373	Finish	0d	9/2/93	9/2/93	
374	Radiologically Controlled Area (RCA)	127d	4/1/93	9/27/93	315SS
375	Start	0d	4/1/93	4/1/93	328FS+1w
376	Finish	0d	9/27/93	9/27/93	
377		0d			

OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
378	Environmental Evaluation	118.5d	7/6/93	12/17/93	
379	Start	0d	7/6/93	7/6/93	340SS
380	Finish	0d	12/17/93	12/17/93	353FS+1w
381	Evaluate Rad Data	202d	3/26/93	1/4/94	
382	Around Ponds	106.5d	3/26/93	8/24/93	
383	Start	0d	3/26/93	3/26/93	218SS
384	Finish	0d	8/24/93	8/24/93	231FS+1w
385	ITS	77d	4/9/93	7/27/93	
386	Start	0d	4/9/93	4/9/93	243SS
387	Finish	0d	7/27/93	7/27/93	256FS+1w
388	Pond 207A	73d	6/22/93	10/1/93	
389	Start	0d	6/22/93	6/22/93	268SS
390	Finish	0d	10/1/93	10/1/93	281FS+1w
391	Earthen Ponds	107d	4/27/93	9/23/93	
392	Start	0d	4/27/93	4/27/93	293SS
393	Finish	0d	9/23/93	9/23/93	306FS+1w
394	Radiologically Controlled Area (RCA)	127d	4/22/93	10/18/93	
395	Start	0d	4/22/93	4/22/93	318SS
396	Finish	0d	10/18/93	10/18/93	331FS+1w
397	Environmental Evaluation	115.5d	7/27/93	1/4/94	
398	Start	0d	7/27/93	7/27/93	343SS
399	Finish	0d	1/4/94	1/4/94	356FS+2d
400	Human Health Risk Assessment	248d	1/4/93	12/15/93	
401	Exposure Assessment - TM4	91d	1/4/93	5/10/93	
402	Prepare Tech Memo	6.8w	1/4/93	2/18/93	361
403	Submit Draft Tech Memo to EG&G/DOE	0d	2/19/93	2/19/93	402
404	EG&G/DOE Review	10d	2/19/93	3/4/93	403
405	Incorporate Comments	5d	3/5/93	3/11/93	404
406	Submit Revised Draft Tech Memo	0d	3/11/93	3/11/93	405
407	Transmittal Processing - EPA/CDH	2d	3/12/93	3/15/93	406
408	EPA/CDH Review	20d	3/16/93	4/12/93	407
409	Resolve Comments and Finalize TM	10d	4/13/93	4/26/93	408
410	Submit Final Tech Memo	0d	4/26/93	4/26/93	409
411	EPA/CDH Final Approval	10d	4/27/93	5/10/93	410
412	Exposure Assessment Models - TM5	97d	1/29/93	6/14/93	
413	Prepare Tech Memo	8w	1/29/93	3/25/93	
414	Submit Draft Tech Memo to EG&G/DOE	0d	3/25/93	3/25/93	413
415	EG&G/DOE Review	10d	3/26/93	4/8/93	414
416	Incorporate Comments	5d	4/9/93	4/15/93	415
417	Submit Draft Tech Memo	0d	4/15/93	4/15/93	416
418	Transmittal Processing - EPA/CDH	2d	4/16/93	4/19/93	417
419	EPA/CDH Review	20d	4/20/93	5/17/93	418
420	Resolve Comments and Finalize Tech Memo	10d	5/18/93	5/31/93	419
421	Submit Final Tech Memo	0d	5/31/93	5/31/93	420
422	EPA/CDH Final Approval	10d	6/1/93	6/14/93	421
423	Contaminants of Concern - TM6	91d	8/10/93	12/14/93	
424	Prepare Tech Memo	6w	8/10/93	9/20/93	396FS-10w
425	Submit Draft Tech Memo to EG&G/DOE	0d	9/20/93	9/20/93	424

OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
426	EG&G/DOE Review	10d	9/21/93	10/4/93	425
427	Incorporate Comments	9d	10/5/93	10/15/93	426
428	Submit Revised Draft Tech Memo	0d	10/15/93	10/15/93	427
429	Transmittal Processing - EPA/CDH	2d	10/18/93	10/19/93	428
430	EPA/CDH Review	20d	10/20/93	11/16/93	429
431	Resolve Comments and Finalize TM	10d	11/17/93	11/30/93	430
432	Submit Final Tech Memo	0d	11/30/93	11/30/93	431
433	EPA/CDH Final Approval	10d	12/1/93	12/14/93	432
434	Toxicity Assessment - TM7	82d	8/24/93	12/15/93	
435	Prepare Tech Memo	4w	8/24/93	9/20/93	396FS-8w
436	Submit Draft Tech Memo to EG&G/DOE	0d	9/20/93	9/20/93	435
437	EG&G/DOE Review	10d	9/21/93	10/4/93	436
438	Incorporate Comments	10d	10/5/93	10/18/93	437
439	Submit Draft Tech Memo	0d	10/18/93	10/18/93	438
440	Transmittal Processing - EPA/CDH	2d	10/19/93	10/20/93	439
441	EPA/CDH Review	20d	10/21/93	11/17/93	440
442	Resolve Comments and Finalize Tech Memo	10d	11/18/93	12/1/93	441
443	Submit Final Tech Memo	0d	12/1/93	12/1/93	442
444	EPA/CDH Final Approval	10d	12/2/93	12/15/93	443
445	Environmental Evaluation	494d	1/1/92	11/22/93	
446	Data Review, consultations	6.5w	1/1/93	2/16/93	
447	Site Specific Conceptual Exposure Model	8w	2/16/93	4/13/93	446
448	Transport model to ID potential pathways	9w	2/9/93	4/13/93	446FS-5d
449	Select Target Taxa & Analytes	9w	2/9/93	4/13/93	446FS-5d
450	Field Investigations	45d	5/17/93	7/17/93	447,448,449
451	Biological & Habitat Site Surveys	30d	5/17/93	6/26/93	
452	Habitat Survey	6w	5/17/93	6/26/93	
453	Animal Survey	3d	5/17/93	5/19/93	
454	Vegetation Survey	6w	5/17/93	6/26/93	
455	Mammal Survey	2w	6/14/93	6/26/93	
456	Ecotoxicological Investigation	25d	6/14/93	7/17/93	
457	Soil Plots/Sampling	1w	7/12/93	7/17/93	
458	Small Mammal Sampling	1w	7/12/93	7/17/93	
459	Vegetation Sampling	1w	7/12/93	7/17/93	
460	Cottontail Sampling	5w	6/14/93	7/17/93	
461	EE Portion of BRA	453d	1/1/92	9/24/93	
462	EE Portion of BRA	106d	6/28/93	11/22/93	
463	Habitat Survey Report	3w	6/28/93	7/16/93	452
464	Biological Survey Report	15d	6/28/93	7/16/93	453,454,455
465	Ecotoxicological Report	55d	9/7/93	11/22/93	
466	Start Report	0d	9/7/93	9/7/93	396FS-6w
467	Finish Report	0d	11/22/93	11/22/93	396FS+5w
468					
469	DATA EVALUATION & REPORT PREPARATION	560d	9/4/92	10/27/94	
470	Collect Historic Data	27.2w	9/4/92	3/12/93	
471	Evaluate Historic Data	35d	3/15/93	4/30/93	470
472	Prepare Draft Phase I RFI/RI Report	270d	12/23/92	1/4/94	358FF
473	Submit Draft Phase I RFI/RI Report to EG&G	0d	1/4/94	1/4/94	472

OU4 SOLAR PONDS PHASE I RFI/RI TARGET SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
474	Transmittal Processing to DOE/HQ	5d	1/5/94	1/11/94	473
475	DOE-HQ Review of Draft RFI/RI Report	21d	1/12/94	2/9/94	474
476	EG&G/DOE-RFO Review of Draft RFI/RI Report	21d	1/12/94	2/9/94	474
477	Incorporate Comments and Finalize	21d	2/10/94	3/10/94	475, 476
478	Transmittal Processing to EPA/CDH	5d	3/11/94	3/17/94	477
479	Submit Draft RFI/RI Report to EPA/CDH	0d	3/17/94	3/17/94	478
480	EPA/CDH Review Draft RFI/RI Report	62d	3/18/94	6/13/94	479
481	Receive EPA/CDH Comments	0d	6/13/94	6/13/94	480
482	Incorporate Comments and Finalize	42d	6/14/94	8/10/94	481
483	Transmittal Processing	5d	8/11/94	8/17/94	482
484	Submit Final RFI/RI Report	0d	8/17/94	8/17/94	483
485	EPA/CDH Review of Final RFI/RI Report	21d	8/18/94	9/15/94	484
486	Receive Comments from EPA/CDH	0d	9/15/94	9/15/94	485
487	Incorporate Comments and Finalize Report	25d	9/16/94	10/20/94	486
488	Transmittal Processing to EPA/CDH	5d	10/21/94	10/27/94	487
489	EPA/CDH Final Approval	0d	10/27/94	10/27/94	488

# ATTACHMENT C

## OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
1	REGULATORY (IAG) MILESTONES	106d	5/21/93	10/18/93	
2	Submit Draft Phase I RFI/RI Report to EPA/CDH	0d	5/21/93	5/21/93	
3	Submit Final Phase I RFI/RI Report to EPA/CDH	0d	10/18/93	10/18/93	
4					
5	POND ACCESS/CLEAN AND DRY	812d	10/20/92	11/30/95	
6	Pond 207A	0d	10/20/92	10/20/92	
7	Pond 207B-Center	0d	9/30/93	9/30/93	
8	Pond 207B-North (not accessible during phase I)	0d	9/30/94	9/30/94	
9	pond 207B-South (not accessible during phase I)	0d	11/30/95	11/30/95	
10	pond 207C (not accessible during phase I)	0d	11/30/94	11/30/94	
11					
12	CONSTRUCT PA DECON PAD	28.3w	8/10/92	2/23/93	
13					
14	WORK PLAN IMPLEMENTATION	607d	8/3/92	11/29/94	
15	Contract Award	0d	8/3/92	8/3/92	
16	Kick-Off Meeting - AE	0d	8/13/92	8/13/92	
17	Kick-Off Meeting - EG&G	0d	8/18/92	8/18/92	
18	PROJECT MANAGEMENT	604.88d	8/5/92	11/29/94	
19	Weekly Project Meetings	604.88d	8/5/92	11/29/94	
20	First Meeting	1.5h	8/5/92	8/5/92	
21	Last Meeting	0d	11/29/94	11/29/94	488FF
22	Monthly Accrual Cost Tracking	593d	8/21/92	11/29/94	
23	Submit First Report	0d	8/21/92	8/21/92	15
24	Submit Last Report	0d	11/29/94	11/29/94	488FF
25	Bi-weekly Progress Tracking & Reports	581d	9/8/92	11/29/94	
26	Start Progress Tracking	0d	9/8/92	9/8/92	
27	Stop Progress Tracking	0d	11/29/94	11/29/94	488FF
28	Justification for Visit Forms	570d	8/18/92	10/24/94	
29	Submit First Months Form	1.8w	8/18/92	8/28/92	17
30	Submit Last Months Form	0.8w	10/19/94	10/24/94	488FS-30d
31	PROJECT PLANNING	520d	8/3/92	7/30/94	15
32	Health & Safety Plan	51d	8/13/92	10/23/92	
33	Prepare Plan	16d	8/13/92	9/4/92	16
34	EG&G Review	14d	9/4/92	9/24/92	33
35	Finalize Plan	11d	9/24/92	10/9/92	34
36	Submit Final Plan	0d	10/9/92	10/9/92	35
37	EG&G Final Review	10d	10/9/92	10/23/92	36
38	Vadose Zone Tech Memo No. 1 & SOPS	172d	8/24/92	4/20/93	
39	Prepare Tech Memo	37d	8/24/92	10/13/92	
40	Submit Draft Tech Memo to EG&G/DOE	0d	10/13/92	10/13/92	39
41	EG&G/DOE Review	13d	10/14/92	10/30/92	40
42	Incorporate Comments	7d	11/2/92	11/10/92	41
43	Transmittal Processing - DOE/RFO	2d	11/11/92	11/12/92	42
44	DOE/EG&G Final Combined Review	2d	11/13/92	11/16/92	43
45	Transmit to CDH/EPA	0d	11/16/92	11/16/92	44
46	EPA/CDH Review	10d	11/17/92	11/30/92	45
47	EPA/CDH Conditional Approval of TM	0d	11/30/92	11/30/92	46
48	Resolve Comments & Finalize Tech Memo	11d	12/1/92	12/15/92	47

OU4 SOLAR PONDS PHASE I RF/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
49	Transmit Final TM to DOE-RFO	0d	12/15/92	12/15/92	48
50	Transmit Final TM to CDH/EPA	0d	12/15/92	12/15/92	48
51	EPA/CDH Final Approval	18w	12/16/92	4/20/93	50
52	Modifications to Field Activities, Tech Memo No. 2	98d	1/26/93	6/10/93	
53	EPA/CDH Meeting - Approval to Proceed w/ TM	1d	1/26/93	1/26/93	
54	Prepare Tech Memo	3.3w	1/27/93	2/18/93	53
55	Submit Draft TM to EG&G/DOE	0d	2/18/93	2/18/93	54
56	EG&G/DOE Review	3d	2/18/93	2/23/93	55
57	Incorporate Comments and Expand Memo	2.9w	2/23/93	3/15/93	56
58	Submit Revised Draft TM to EG&G/DOE	0d	3/15/93	3/15/93	57
59	EG&G/DOE Review	2w	3/16/93	3/29/93	58
60	Incorporate Comments	1.2w	3/30/93	4/6/93	59
61	Transmittal Processing - EPA/CDH	2d	4/7/93	4/8/93	60
62	EPA/CDH Review	4w	4/9/93	5/6/93	61
63	Resolve Comments & Finalize Tech Memo	2w	5/7/93	5/20/93	62
64	Submit Final TM	0d	5/20/93	5/20/93	63
65	EPA/CDH Final Approval	3w	5/21/93	6/10/93	64
66	Environmental Evaluation, Tech Memo No. 3	190.5d	8/19/92	5/12/93	
67	Prepare EE Working Document	82d	8/19/92	12/10/92	16
68	Submit Draft EEWD to EG&G	0d	12/10/92	12/10/92	67
69	EG&G Review	4w	12/11/92	1/7/93	68
70	Incorporate Comments into EEWP	0.2w	1/8/93	1/8/93	69
71	Submit Revised Draft EEWD to EG&G/DOE	0d	1/8/93	1/8/93	70
72	EG&G/DOE Review	3w	1/8/93	1/28/93	71
73	Prepare Draft EE Tech Memo	4.8w	1/14/93	2/16/93	70
74	Submit Draft EE Tech Memo to EG&G/DOE	0d	2/16/93	2/16/93	73
75	EG&G/DOE Review	2.7w	2/16/93	3/5/93	74
76	Incorporate Comments into TM	1w	3/5/93	3/12/93	75
77	Submit Revised EE Tech Memo to EG&G/DOE	0d	3/12/93	3/12/93	76
78	Transmittal Processing - EPA/CDH	1d	3/12/93	3/15/93	77
79	EPA/CDH Review	4w	3/15/93	4/12/93	78
80	EPA/CDH Conditional Approval for EE Tech Memo	0d	4/12/93	4/12/93	79
81	Resolve Comments & Finalize Tech Memo	1w	4/12/93	4/19/93	80
82	Submit Final EE Tech Memo to EG&G/DOE	0d	4/19/93	4/19/93	81
83	Transmittal Processing - EPA/CDH	2d	4/19/93	4/21/93	82
84	EPA/CDH Final Review and Approval	3w	4/21/93	5/12/93	83
85	Training	168d	8/3/92	3/24/93	15
86	General Employee Training	154d	8/18/92	3/19/93	
87	First Class	4h	8/18/92	8/18/92	
88	Last Class	8h	3/19/93	3/19/93	
89	Radiation Worker Training	156d	8/19/92	3/24/93	
90	First Class	1d	8/19/92	8/19/92	
91	Last Class	1d	3/24/93	3/24/93	
92	Radiation Protection Training	3d	9/3/92	9/7/92	
93	September 3rd Class	3d	9/3/92	9/7/92	
94	Respirator Fit Test & Training	33d	8/27/92	10/12/92	
95	First Fit	4h	8/27/92	8/27/92	
96	Last Fit	8h	10/12/92	10/12/92	

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
97	Building Indoctrination	80.06d	8/20/92	12/10/92	
98	First Indoctrination	0.5h	8/20/92	8/20/92	
99	Last Indoctrination	0.5h	12/10/92	12/10/92	
100	Radio Communication Training	73d	8/31/92	12/10/92	
101	First Training	0d	8/31/92	8/31/92	
102	Last Training	0d	12/10/92	12/10/92	
103	SOP Training	89d	8/3/92	12/4/92	
104	First Training	0d	8/3/92	8/3/92	
105	Last Training	0d	12/4/92	12/4/92	
106	Core Logging Training	75d	8/7/92	11/19/92	
109	Decontamination Pad Training	0.1w	11/5/92	11/5/92	116
110	Drum Training	2h	12/9/92	12/9/92	
111	RFEDS Training	16.16d	11/16/92	12/8/92	
114	Site Base Map Preparation	13w	9/8/92	12/7/92	17
115	Mobilization	132d	8/3/92	2/2/93	
151	Plan of the day meetings	455d	11/2/92	7/30/94	
154					
155	FIELDWORK	379d	11/10/92	4/22/94	37
156	Ground Water Level Measurements	14w	3/17/93	6/22/93	
157	Obtain borehole/utility clearances	61d	12/10/92	3/5/93	
158	First Borehole Clearance	0d	12/10/92	12/10/92	
159	Last Borehole Clearance	0d	3/5/93	3/5/93	170, 174, 180, 185, 189
160	Pre-Work RAD Survey	61d	12/10/92	3/5/93	
161	Start Survey	0d	12/10/92	12/10/92	158SS+1d
162	Finish Survey	0d	3/5/93	3/5/93	159FF
163	OU Wide Radiological Survey	100d	11/12/92	4/1/93	
164	Start RAD Survey	0d	11/12/92	11/12/92	
165	Finish Rad Survey	0d	4/1/93	4/1/93	189FF
166	OU Wide Surface Soil Sampling	89d	12/11/92	4/14/93	
167	Random Surface Soil Sampling	3.6w	12/11/92	1/5/93	
168	Discrete Surface Soil Sampling	2w	4/1/93	4/14/93	163
169	Around Ponds (xb,xv,xi,xi,xi)	85d	12/14/92	4/9/93	
170	Borehole Drilling and Sampling/Piezometer Installation	11.3w	12/14/92	3/2/93	
171	Core Logging	15.2w	12/25/92	4/9/93	170SS+2w
172	Vadose Zone Monitoring Installation	3.2w	2/9/93	3/2/93	176
173	Interceptor Trench System (xb,xv,xi,xi,xi)	32d	12/28/92	2/9/93	
174	Borehole Drilling and Sampling/Piezometer Installation	5.4w	12/28/92	2/2/93	
175	Core Logging	4.4w	1/11/93	2/9/93	174SS+2w
176	Vadose Zone Monitoring Installation	1.8w	1/21/93	2/2/93	174FF
177	Pond 207A (xb,xv,xi,xi,xi)	111d	11/10/92	4/13/93	
178	Radiological Survey	5d	11/10/92	11/16/92	
179	Geophysics	5d	12/4/92	12/10/92	
180	Borehole Drilling and Sampling	4.6w	3/10/93	4/9/93	
181	Core Logging	3w	3/24/93	4/13/93	180SS+2w
182	Vadose Zone Monitoring Installation	1.6w	3/22/93	3/31/93	
183	Earthen Ponds "Original Ponds" (xb,xv,xi,xi,xi)	63d	1/13/93	4/9/93	
184	Geophysics	2d	4/8/93	4/9/93	
185	Borehole Drilling & Sampling	8.4w	1/13/93	3/11/93	

OU4 SOLAR PONDS PHASE I RF/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
186	Core Logging	7.6w	1/27/93	3/19/93	185SS+2w
187	Vadose Zone Monitoring Installation	1.4w	3/3/93	3/11/93	
188	Radiologically Controlled Area (RCA) (xb,xv,xi,xi)	77d	1/8/93	4/26/93	
189	Borehole Drilling & Sampling	15.4w	1/8/93	4/26/93	
190	Core Logging	13.2w	1/22/93	4/23/93	189SS+2w
191	Vadose Zone Monitoring Installation	3d	2/22/93	2/24/93	
192	Drum Sampling	1w	4/20/93	4/26/93	189FF
193	Seismic Reflection/Refraction	2w	4/26/93	5/7/93	177FF
194	Land Survey	181d	11/18/92	7/29/93	
195	Start Land Survey	0d	11/18/92	11/18/92	164SS+1w
196	Finish Land Survey	0d	7/29/93	7/29/93	204FF-1w
197	Other Vadose	64d	3/22/93	6/17/93	
198	Guelph Permeameter Tests	4.8w	3/22/93	4/22/93	182SS
199	Soil Gas Survey	2w	4/23/93	5/6/93	198
200	Infiltration Installation	6w	5/7/93	6/17/93	199
201	Vadose Monitoring Activities	260d	4/26/93	4/22/94	
202	Lysimeter Sampling	52w	4/26/93	4/22/94	182FS+3.4w
203	Infiltration Testing	6w	5/28/93	7/8/93	200FS-3w
204	Demobilization	4w	7/9/93	8/5/93	203, 188, 183, 177, 173, 169, 166
205					
206	LAB ANALYSIS/TURNAROUND				
207	Around Ponds	295d	12/14/92	1/28/94	
208	Non Rad Data Lab Analysis/Turnaround	196.5d	12/14/92	9/14/93	
209	First Sample	116.5d	12/14/92	5/25/93	
210	Last Sample	0d	12/14/92	12/14/92	170SS
211	Rad Data Lab Analysis/Turnaround	0d	5/25/93	5/25/93	170FS+60d
212	First Sample	146.5d	12/14/92	7/6/93	
213	Last Sample	0d	12/14/92	12/14/92	170SS
214	Receive Unvalidated Non Rad Data	0d	7/6/93	7/6/93	170FS+90d
215	Receive First	56.5d	3/5/93	5/25/93	
216	Receive Last	0d	3/5/93	3/5/93	209FS+60d
217	Receive Unvalidated Rad Data	0d	5/25/93	5/25/93	210
218	Receive First	56.5d	4/16/93	7/6/93	
219	Receive Last	0d	4/16/93	4/16/93	212FS+90d
220	Validate Non Rad Data	0d	7/6/93	7/6/93	213
221	Begin	106.5d	3/5/93	8/3/93	
222	End	0d	3/5/93	3/5/93	215
223	Validate Rad Data	0d	8/3/93	8/3/93	216FS+50d
224	Begin	106.5d	4/16/93	9/14/93	
225	End	0d	4/16/93	4/16/93	218
226	Receive Unvalidated Non Rad Data	0d	9/14/93	9/14/93	219FS+50d
227	Receive First	56.5d	5/14/93	8/3/93	
228	Receive Last	0d	5/14/93	5/14/93	221FS+50d
229	Receive Validated Rad Data	0d	8/3/93	8/3/93	222
230	Receive First	56.5d	6/25/93	9/14/93	
231	Receive Last	0d	6/25/93	6/25/93	224FS+50d
232	Interceptor Trench System	0d	9/14/93	9/14/93	225
233	Non Rad Data Lab Analysis/Turnaround	167d	12/28/92	8/17/93	
233		87d	12/28/92	4/27/93	

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
234	First Sample	0d	12/28/92	12/28/92	174SS
235	Last Sample	0d	4/27/93	4/27/93	174FS+60d
236	Rad Data Lab Analysis/Turnaround	117d	12/28/92	6/8/93	
237	First Sample	0d	12/28/92	12/28/92	174SS
238	Last Sample	0d	6/8/93	6/8/93	174FS+90d
239	Receive Unvalidated Non Rad Data	27d	3/19/93	4/27/93	
240	Receive First	0d	3/19/93	3/19/93	234FS+60d
241	Receive Last	0d	4/27/93	4/27/93	235
242	Receive Unvalidated Rad Data	27d	4/30/93	6/8/93	
243	Receive First	0d	4/30/93	4/30/93	237FS+90d
244	Receive Last	0d	6/8/93	6/8/93	238
245	Validate Non Rad Data	77d	3/19/93	7/6/93	
246	Begin	0d	3/19/93	3/19/93	240
247	End	0d	7/6/93	7/6/93	241FS+50d
248	Validate Rad Data	77d	4/30/93	8/17/93	
249	Begin	0d	4/30/93	4/30/93	243
250	End	0d	8/17/93	8/17/93	244FS+50d
251	Receive Validated Non Rad Data	27d	5/28/93	7/6/93	
252	Receive First	0d	5/28/93	5/28/93	246FS+50d
253	Receive Last	0d	7/6/93	7/6/93	247
254	Receive Validated Rad Data	27d	7/9/93	8/17/93	
255	Receive First	0d	7/9/93	7/9/93	249FS+50d
256	Receive Last	0d	8/17/93	8/17/93	250
257	Pond 207A	163d	3/10/93	10/22/93	
258	Non Rad Data Lab Analysis/Turnaround	84d	3/10/93	7/5/93	
259	First Sample	0d	3/10/93	3/10/93	180SS
260	Last Sample	1d	7/5/93	7/5/93	180FS+60d
261	Rad Data Lab Analysis/Turnaround	113d	3/10/93	8/13/93	
262	First Sample	0d	3/10/93	3/10/93	180SS
263	Last Sample	0d	8/13/93	8/13/93	180FS+90d
264	Receive Unvalidated Non Rad Data	24d	6/1/93	7/5/93	
265	Receive First	0d	6/1/93	6/1/93	259FS+60d
266	Receive Last	0d	7/5/93	7/5/93	260
267	Receive Unvalidated Rad Data	23d	7/13/93	8/13/93	
268	Receive First	0d	7/13/93	7/13/93	262FS+90d
269	Receive Last	0d	8/13/93	8/13/93	263
270	Validate Non Rad Data	74d	6/1/93	9/13/93	
271	Begin	0d	6/1/93	6/1/93	265
272	End	0d	9/13/93	9/13/93	266FS+50d
273	Validate Rad Data	73d	7/13/93	10/22/93	
274	Begin	0d	7/13/93	7/13/93	268
275	End	0d	10/22/93	10/22/93	269FS+50d
276	Receive Validated Non Rad Data	24d	8/10/93	9/13/93	
277	Receive First	0d	8/10/93	8/10/93	271FS+50d
278	Receive Last	0d	9/13/93	9/13/93	272
279	Receive Validated Rad Data	23d	9/21/93	10/22/93	
280	Receive First	0d	9/21/93	9/21/93	274FS+50d
281	Receive Last	0d	10/22/93	10/22/93	275

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
282	Earthen Ponds	182d	1/13/93	9/23/93	
283	Non Rad Data Lab Analysis/Turnaround	102d	1/13/93	6/3/93	
284	First Sample	0d	1/13/93	1/13/93	185SS
285	Last Sample	0d	6/3/93	6/3/93	185FS+60d
286	Rad Data Lab Analysis/Turnaround	132d	1/13/93	7/15/93	
287	First Sample	0d	1/13/93	1/13/93	185SS
288	Last Sample	0d	7/15/93	7/15/93	185FS+90d
289	Receive Unvalidated Non Rad Data	42d	4/6/93	6/3/93	
290	Receive First	0d	4/6/93	4/6/93	284FS+60d
291	Receive Last	0d	6/3/93	6/3/93	285
292	Receive Unvalidated Rad Data	42d	5/18/93	7/15/93	
293	Receive First	0d	5/18/93	5/18/93	287FS+90d
294	Receive Last	0d	7/15/93	7/15/93	288
295	Validate Non Rad Data	92d	4/6/93	8/12/93	
296	Begin	0d	4/6/93	4/6/93	290
297	End	0d	8/12/93	8/12/93	291FS+50d
298	Validate Rad Data	92d	5/18/93	9/23/93	
299	Begin	0d	5/18/93	5/18/93	293
300	End	0d	9/23/93	9/23/93	294FS+50d
301	Receive Validated Non Rad Data	42d	6/15/93	8/12/93	
302	Receive First	0d	6/15/93	6/15/93	296FS+50d
303	Receive Last	0d	8/12/93	8/12/93	297
304	Receive Validated Rad Data	42d	7/27/93	9/23/93	
305	Receive First	0d	7/27/93	7/27/93	299FS+50d
306	Receive Last	0d	9/23/93	9/23/93	300
307	Radiologically Controlled Area (RCA)	217d	1/8/93	11/8/93	
308	Non Rad Data Lab Analysis/Turnaround	137d	1/8/93	7/19/93	
309	First Sample	0d	1/8/93	1/8/93	189SS
310	Last Sample	0d	7/19/93	7/19/93	189FS+60d
311	Rad Data Lab Analysis/Turnaround	167d	1/8/93	8/30/93	
312	First Sample	0d	1/8/93	1/8/93	189SS
313	Last Sample	0d	8/30/93	8/30/93	189FS+90d
314	Receive Unvalidated Non Rad Data	77d	4/1/93	7/19/93	
315	Receive First	0d	4/1/93	4/1/93	309FS+60d
316	Receive Last	0d	7/19/93	7/19/93	310
317	Receive Unvalidated Rad Data	77d	5/13/93	8/30/93	
318	Receive First	0d	5/13/93	5/13/93	312FS+90d
319	Receive Last	0d	8/30/93	8/30/93	313
320	Validate Non Rad Data	127d	4/1/93	9/27/93	
321	Begin	0d	4/1/93	4/1/93	315
322	End	0d	9/27/93	9/27/93	316FS+50d
323	Validate Rad Data	127d	5/13/93	11/8/93	
324	Begin	0d	5/13/93	5/13/93	318
325	End	0d	11/8/93	11/8/93	319FS+50d
326	Receive Validated Non Rad Data	77d	6/10/93	9/27/93	
327	Receive First	0d	6/10/93	6/10/93	321FS+50d
328	Receive Last	0d	9/27/93	9/27/93	322
329	Receive Validated Rad Data	77d	7/22/93	11/8/93	

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
330	Receive First	0d	7/22/93	7/22/93	324FS+50d
331	Receive Last	0d	11/8/93	11/8/93	325
332	Environmental Evaluation	208.5d	4/13/93	1/28/94	
333	Non Rad Data Lab Analysis/Turnaround	128.5d	4/13/93	10/8/93	
334	First Sample	0d	4/13/93	4/13/93	456SS
335	Last Sample	0d	10/8/93	10/8/93	456FS+60d
336	Rad Data Lab Analysis/Turnaround	158.5d	4/13/93	11/19/93	
337	First Sample	0d	4/13/93	4/13/93	456SS
338	Last Sample	0d	11/19/93	11/19/93	456FS+90d
339	Receive Unvalidated Non Rad Data	68.5d	7/6/93	10/8/93	
340	Receive First	0d	7/6/93	7/6/93	334FS+60d
341	Receive Last	0d	10/8/93	10/8/93	335
342	Receive Unvalidated Rad Data	68.5d	8/17/93	11/19/93	
343	Receive First	0d	8/17/93	8/17/93	337FS+90d
344	Receive Last	0d	11/19/93	11/19/93	338
345	Validate Non Rad Data	118.5d	7/6/93	12/17/93	
346	Begin	0d	7/6/93	7/6/93	340
347	End	0d	12/17/93	12/17/93	341FS+50d
348	Validate Rad Data	118.5d	8/17/93	1/28/94	
349	Begin	0d	8/17/93	8/17/93	343
350	End	0d	1/28/94	1/28/94	344FS+50d
351	Receive Validated Non Rad Data	68.5d	9/14/93	12/17/93	
352	Receive First	0d	9/14/93	9/14/93	346FS+50d
353	Receive Last	0d	12/17/93	12/17/93	347
354	Receive Validated Rad Data	68.5d	10/26/93	1/28/94	
355	Receive First	0d	10/26/93	10/26/93	349FS+50d
356	Receive Last	0d	1/28/94	1/28/94	350
357					
358	BASELINE RISK ASSESSMENT	548d	1/1/92	2/4/94	
359	Data Collection & Evaluation	371d	9/4/92	2/4/94	
360	Collect Historic Data	27.4w	9/4/92	3/15/93	
361	Evaluate Historic Data	35d	3/16/93	5/3/93	360
362	Evaluate Non-Rad Data	210d	3/5/93	12/24/93	
363	Around Ponds	111.5d	3/5/93	8/10/93	
364	Start	0d	3/5/93	3/5/93	215SS
365	Finish	0d	8/10/93	8/10/93	228FS+1w
366	ITS	82d	3/19/93	7/13/93	
367	Start	0d	3/19/93	3/19/93	240
368	Finish	0d	7/13/93	7/13/93	253FS+1w
369	Pond 207A	79d	6/1/93	9/20/93	
370	Start	0d	6/1/93	6/1/93	265SS
371	Finish	0d	9/20/93	9/20/93	278FS+1w
372	Earthen Ponds	97d	4/6/93	8/19/93	
373	Start	0d	4/6/93	4/6/93	290SS
374	Finish	0d	8/19/93	8/19/93	303FS+1w
375	Radiologically Controlled Area (RCA)	132d	4/1/93	10/4/93	
376	Start	0d	4/1/93	4/1/93	315SS
377	Finish	0d	10/4/93	10/4/93	328FS+1w

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
378	Environmental Evaluation	123.5d	7/6/93	12/24/93	
379	Start	0d	7/6/93	7/6/93	340SS
380	Finish	0d	12/24/93	12/24/93	353FS+1w
381	Evaluate Rad Data	210d	4/16/93	2/4/94	
382	Around Ponds	111.5d	4/16/93	9/21/93	
383	Start	0d	4/16/93	4/16/93	218SS
384	Finish	0d	9/21/93	9/21/93	231FS+1w
385	ITS	82d	4/30/93	8/24/93	
386	Start	0d	4/30/93	4/30/93	243SS
387	Finish	0d	8/24/93	8/24/93	256FS+1w
388	Pond 207A	78d	7/13/93	10/29/93	
389	Start	0d	7/13/93	7/13/93	268SS
390	Finish	0d	10/29/93	10/29/93	281FS+1w
391	Earthen Ponds	97d	5/18/93	9/30/93	
392	Start	0d	5/18/93	5/18/93	293SS
393	Finish	0d	9/30/93	9/30/93	306FS+1w
394	Radiologically Controlled Area (RCA)	132d	5/13/93	11/15/93	
395	Start	0d	5/13/93	5/13/93	318SS
396	Finish	0d	11/15/93	11/15/93	331FS+1w
397	Environmental Evaluation	123.5d	8/17/93	2/4/94	
398	Start	0d	8/17/93	8/17/93	343SS
399	Finish	0d	2/4/94	2/4/94	356FS+1w
400	Human Health Risk Assessment	268d	1/4/93	1/12/94	
401	Exposure Assessment - TM4	91d	1/4/93	5/10/93	
402	Prepare Tech Memo	6.8w	1/4/93	2/18/93	361
403	Submit Draft Tech Memo to EG&G/DOE	0d	2/19/93	2/19/93	402
404	EG&G/DOE Review	10d	2/19/93	3/4/93	403
405	Incorporate Comments	5d	3/5/93	3/11/93	404
406	Submit Revised Draft Tech Memo	0d	3/11/93	3/11/93	405
407	Transmittal Processing - EPA/CDH	2d	3/12/93	3/15/93	406
408	EPA/CDH Review	20d	3/16/93	4/12/93	407
409	Resolve Comments and Finalize TM	10d	4/13/93	4/26/93	408
410	Submit Final Tech Memo	0d	4/26/93	4/26/93	409
411	EPA/CDH Final Approval	10d	4/27/93	5/10/93	410
412	Exposure Assessment Models - TM5	97d	1/29/93	6/14/93	
413	Prepare Tech Memo	8w	1/29/93	3/25/93	
414	Submit Draft Tech Memo to EG&G/DOE	0d	3/25/93	3/25/93	413
415	EG&G/DOE Review	10d	3/26/93	4/8/93	414
416	Incorporate Comments	5d	4/9/93	4/15/93	415
417	Submit Draft Tech Memo	0d	4/15/93	4/15/93	416
418	Transmittal Processing - EPA/CDH	2d	4/16/93	4/19/93	417
419	EPA/CDH Review	20d	4/20/93	5/17/93	418
420	Resolve Comments and Finalize Tech Memo	10d	5/18/93	5/31/93	419
421	Submit Final Tech Memo	0d	5/31/93	5/31/93	420
422	EPA/CDH Final Approval	10d	6/1/93	6/14/93	421
423	Contaminants of Concern - TM6	91d	9/7/93	1/11/94	
424	Prepare Tech Memo	6w	9/7/93	10/18/93	396FS-10w
425	Submit Draft Tech Memo to EG&G/DOE	0d	10/18/93	10/18/93	424

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
426	EG&G/DOE Review	10d	10/19/93	11/1/93	425
427	Incorporate Comments	9d	11/2/93	11/12/93	426
428	Submit Revised Draft Tech Memo	0d	11/12/93	11/12/93	427
429	Transmittal Processing - EPA/CDH	2d	11/15/93	11/16/93	428
430	EPA/CDH Review	20d	11/17/93	12/14/93	429
431	Resolve Comments and Finalize TM	10d	12/15/93	12/28/93	430
432	Submit Final Tech Memo	0d	12/28/93	12/28/93	431
433	EPA/CDH Final Approval	10d	12/29/93	1/1/94	432
434	Toxicity Assessment - TM7	82d	9/21/93	1/12/94	
435	Prepare Tech Memo	4w	9/21/93	10/18/93	396FS-8w
436	Submit Draft Tech Memo to EG&G/DOE	0d	10/18/93	10/18/93	435
437	EG&G/DOE Review	10d	10/19/93	11/1/93	436
438	Incorporate Comments	10d	11/2/93	11/15/93	437
439	Submit Draft Tech Memo	0d	11/15/93	11/15/93	438
440	Transmittal Processing - EPA/CDH	2d	11/16/93	11/17/93	439
441	EPA/CDH Review	20d	11/18/93	12/15/93	440
442	Resolve Comments and Finalize Tech Memo	10d	12/16/93	12/29/93	441
443	Submit Final Tech Memo	0d	12/29/93	12/29/93	442
444	EPA/CDH Final Approval	10d	12/30/93	1/12/94	443
445	Environmental Evaluation	514d	1/1/92	12/20/93	
446	Data Review, consultations	6.5w	1/1/93	2/16/93	
447	Site Specific Conceptual Exposure Model	8w	2/16/93	4/13/93	446
448	Transport model to ID potential pathways	9w	2/9/93	4/13/93	446FS-5d
449	Select Target Taxa & Analytes	9w	2/9/93	4/13/93	446FS-5d
450	Field Investigations	45d	5/17/93	7/17/93	447,448,449
451	Biological & Habitat Site Surveys	30d	5/17/93	6/26/93	
452	Habitat Survey	6w	5/17/93	6/26/93	
453	Animal Survey	3d	5/17/93	5/19/93	
454	Vegetation Survey	6w	5/17/93	6/26/93	
455	Mammal Survey	2w	6/14/93	6/26/93	
456	Ecotoxicological Investigation	25d	6/14/93	7/17/93	
457	Soil Pits/Sampling	1w	7/12/93	7/17/93	
458	Small Mammal Sampling	1w	7/12/93	7/17/93	
459	Vegetation Sampling	1w	7/12/93	7/17/93	
460	Cottontail Sampling	5w	6/14/93	7/17/93	
461	EE Portion of BRA	453d	1/1/92	9/24/93	
462	EE Portion of BRA	126d	6/28/93	12/20/93	
463	Habitat Survey Report	3w	6/28/93	7/16/93	452
464	Biological Survey Report	15d	6/28/93	7/16/93	453,454,455
465	Ecotoxicological Report	55d	10/5/93	12/20/93	
466	Start Report	0d	10/5/93	10/5/93	396FS-6w
467	Finish Report	0d	12/20/93	12/20/93	396FS+5w
468					
469	DATA EVALUATION & REPORT PREPARATION	583d	9/4/92	11/29/94	
470	Collect Historic Data	27 4w	9/4/92	3/15/93	
471	Evaluate Historic Data	35d	3/16/93	5/3/93	470
472	Prepare Draft Phase I RFI/RI Report	270d	1/25/93	2/4/94	358FF
473	Submit Draft Phase I RFI/RI Report to EG&G	0d	2/4/94	2/4/94	472

OU4 SOLAR PONDS PHASE I RFI/RI COMMITMENT SCHEDULE

ID	Task Name	Duration	Sched St	Sched Fin	Predecessors
474	Transmittal Processing to DOE/HQ	5d	2/7/94	2/11/94	473
475	DOE-HQ Review of Draft RFI/RI Report	21d	2/14/94	3/14/94	474
476	EG&G/DOE-RFO Review of Draft RFI/RI Report	21d	2/14/94	3/14/94	474
477	Incorporate Comments and Finalize	21d	3/15/94	4/12/94	475,476
478	Transmittal Processing	5d	4/13/94	4/19/94	477
479	Submit Draft RFI/RI Report to EPA/CDH	0d	4/19/94	4/19/94	478
480	EPA/CDH Review Draft RFI/RI Report	62d	4/20/94	7/14/94	479
481	Receive EPA/CDH Comments on Draft RFI/RI Report	0d	7/14/94	7/14/94	480
482	Incorporate Comments and Finalize	42d	7/15/94	9/12/94	481
483	Transmittal Processing	5d	9/13/94	9/19/94	482
484	Submit Final RFI/RI Report	0d	9/19/94	9/19/94	483
485	EPA/CDH Review of Final RFI/RI Report	21d	9/20/94	10/18/94	484
486	Incorporate Comments and Finalize RFI/RI Report	25d	10/19/94	11/22/94	485
487	Transmittal Processing to EPA/CDH	5d	11/23/94	11/29/94	486
488	EPA/CDH Final Approval	0d	11/29/94	11/29/94	487

# OU4 Phase I RFI/RI PROJECT

92

93

94

Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct

Original IAG MS

• 5/21/93

• 10/10/93

• 3/17/94

• 8/17/94

Projected IAG MS



Phase I RFI/RI



Field Work (drilling/sampling)



EE Field Work



Lab Turnaround (RI)



Data Validation (RI)



EE Lab Turnaround



EE Data Validation

BRA



(CDI/EDA Final Approval)

HMRA

TM7 (Critical Path)



RFI/RI Report

# OU4 - SOLAR PONDS STRATEGY FOR IAG COMPLIANCE

SEP 92 DEC 92 MAR 93 JUN 93 SEP 93 DEC 93 MAR 94 JUN 94 SEP 94 DEC 94 MAR 95 JUN 95 SEP 95 DEC 95 MAR 96 JUN 96 SEP 96 DEC 96 MAR 97 JUN 97 SEP 97 DEC 97 MAR 98 JUN 98 SEP 98 DEC 98

## PHASE I R/F/RI

### BUFFER ZONE

### PA AROUND PONDS

### RCA DRILLING (NON-POND)

### POND 207A

### POND 207B (CENTER)

### POND 207B (NORTH)

### POND 207C

### POND 207B (SOUTH)

## DRILLING PROGRAM PROGRESS

% BOREHOLE  
DATA ANALYZED  
% OF POND AREA  
REPRESENTED

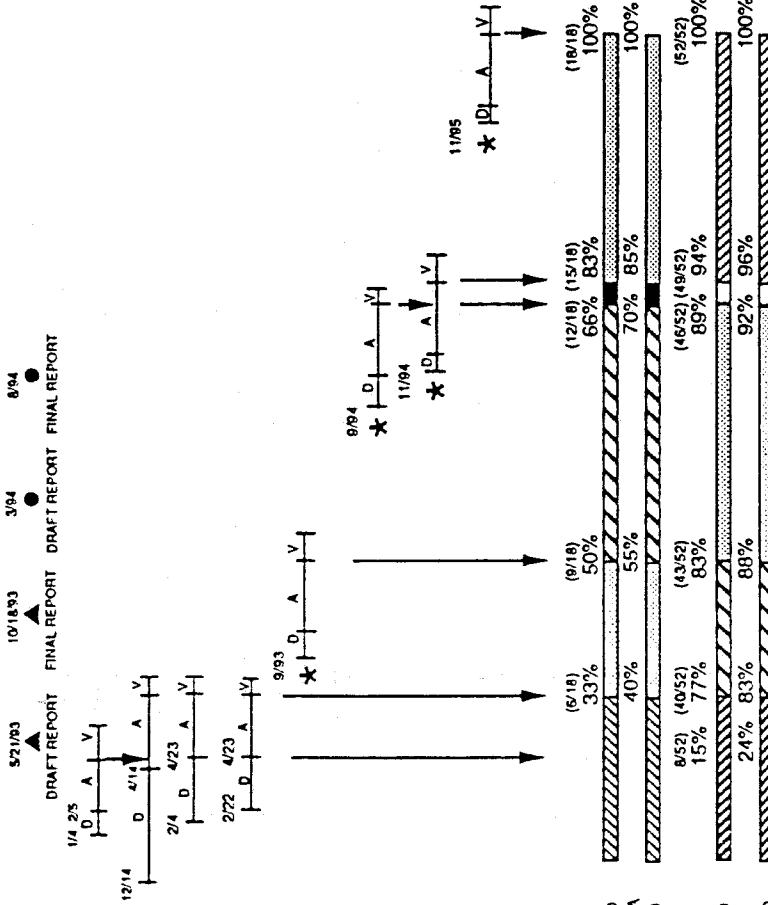
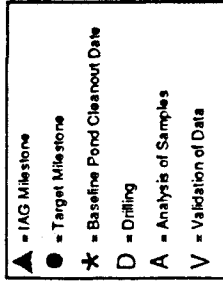
% BOREHOLE  
DATA ANALYZED  
% OF OUR AREA  
REPRESENTED

## TREATABILITY STUDIES if applicable

## IM/IRA DEC DOC

## IM DESIGN AND CONSTRUCTION

## PHASE II R/F/RI



5/25/93 2/14/94

10/12/93 4/94 9/12/94 4/24/95

11/17/93 4/22/94 9/18/94 11/18/94 7/18/95

1/25/95 5/25/95 7/18/95 9/11/96 10/10/96 2/26/96 6/25/96 1/28/97 10/23/98

## **ATTACHMENT G - CRITICAL SCHEDULE ASSUMPTIONS**

**HORIZONTAL DRILLING** - In the event horizontal drilling is required, the target and commitment schedules will require revision. Revisions will reflect the additional time necessary to develop a related plan, to mobilize new equipment, and to perform the work.

**DOCUMENTATION REVIEW** - All agency review cycles, as referenced in the attached schedule, must be maintained.

**LABORATORY DURATIONS** - Radiological analysis are assumed to require 75 working days, as referenced in the Target schedule.

**DATA VALIDATION** - Data Validation is assumed to require 45 days, as referenced in the target schedule.

**TECHNICAL MEMORANDA** - It is assumed that only those technical memoranda currently identified in the schedule will be required.